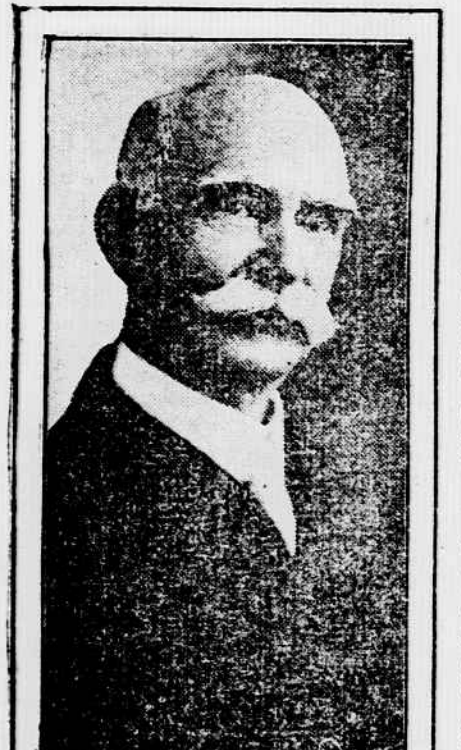


# History of Photography Shown in Museum's Exhibit

THIS is the age of the immediate result, and photography is one of the most interesting immediate results of the age. In this century of progress photography has kept pace with the best of scientific development and can make a showing of large achievement in the hundred years of its life.

The National Museum has almost completed and has now on view the one comprehensive, permanent historical exhibit of the development of photography since its beginning. This section of photography occupies the northwest gallery in the old National Museum building, and it is so admirably arranged that the progress of photography may be traced with ease. There is no superabundance of material, therefore no crowding, and the cases contain just enough to make a complete and artistic display of each period or phase of the science without wearying the eye with multiplicity of objects and detail.

The collection and its arrangement have been the work of T. W. Smillie, custodian of the section of photography in the National Museum, who for thirty-five years has been gathering together everything of importance in photography which has been avail-



T. W. SMILLIE, CUSTODIAN OF PHOTOGRAPHIC SECTION, NATIONAL MUSEUM.

able, with the view of completing an exhibit worthy of the national scope of the institution.

"The exhibit is chronologically arranged," said Mr. Smillie as he conducted a recent visitor through the gallery. "We have in the first case the oldest picture-making machine the world knows, the camera obscura, which existed in primitive form 400 years before Christ, when it was used by Euclid in his scientific experiments. Again, in the eleventh century, Alhazen notes some of the principles of the dark chamber, but does not describe it as a whole. It is still in use in this more or less primitive form as something of a toy. You can see one today in Central Park, New York, where the objects are thrown on a table, to the great amusement of thousands of sightseers. This primitive camera is yet used for tracing, and here is a model employed for the purpose and patented as late as 1815.

"The camera obscura was first used in photography proper by Thomas Wedgwood, who, in 1802, produced ill-wooded in white, and by the use of paper sensitized with a solution of silver nitrate. Here is an

illustration of the Wedgwood process, and Mr. Smillie pointed to a large engraving showing a man sitting patiently in a strong beam of light which streamed through an aperture into which it was reflected by mirrors, the image being projected upon a sheet of sensitized paper.

"This," said Mr. Smillie, "was the beginning of photographic portraiture. Thomas Wedgwood said he obtained very much better results on white leather than on paper, and did not know why. It was, of course, the tanning action as the developer. It is queer that this did not lead them to the use of developers in those days.

"The most valuable photograph in the whole collection, and in money value equal to the whole, is this quaint eight-by-ten print in the second case. This is a specimen of the first permanent photograph made. It is an impression upon paper from a plate. Its inventor was J. N. Niepce, a Frenchman. He covered a silver plate with asphalt dissolved in oil of lavender. This was exposed to the light in the camera and developed in oil of lavender and petroleum. The action of the light makes asphalt insoluble, so that the shadows on the plate were thus etched out. He then cleaned the remaining asphalt off the plate and printed it on paper. The photograph is a copy of a painting of Cardinal d'Amboise, and the original plate is preserved in the museum at Chalon-sur-Saône. In 1814 four impressions were taken and this is one of the four, being the gift of the director of the museum at Chalon-sur-Saône to this museum.

"Now here is the familiar face of J. L. M. Daguerre, who introduced the process which gave us the daguerreotype. These portraits of the distinguished Frenchman were made in his own studio in Paris by Meade, an American. He made five daguerreotypes of the inventor of the process. Three were destroyed in a fire many years ago, and we have here the remaining two. We came into possession of this superior of the two plates through the generosity of Mr. Cramer of St. Louis. It was brought here for sale, the price being \$500. We had not the funds to expend upon it, and Mr. Cramer purchased it and handed it over to me as a gift to this collection.

"You do not know, perhaps, that Daguerre claimed to have discovered his process by an accident. He was exposing some plates one afternoon and did to discontinue his work upon them. He took them out of the camera and set them in a closet. Next day when he opened the closet door he found pictures on the plates. Looking round to see what might cause this result, he found an open vessel of mercury, and it was the vapor of the mercury which developed the latent image. The daguerreotype plates are of copper plated with silver and treated with the vapors of iodine and bromine. They are then developed with the vapors of mercury.

"Of course one plate is required for each copy of a picture, so that the process is expensive, but a fine daguerreotype is a beautiful piece of work. In this third case we have the finest set of daguerreotypes in the United States. I picked them up many years ago by one of those fortunate chances that come to us once in a while. I was walking through the streets of Washington one day, and I saw a dozen beautiful daguerreotypes in the showcase of a local photographer. I immediately bought them. I also learned that they were the work of an Alexandria photographer, but have never been able to identify the man. He was assuredly the leading daguerreotypist in our country. Look at that life-size portrait of a lady, a woman. Nothing could be finer or clearer, and there was not a single blemish on it.

"Samuel F. B. Morse of telegraph fame went to Daguerre shortly after 1840, and he was so impressed by the daguerreotype that he changed confidences to some extent and Daguerre promised that as soon as his pension bill passed he would send a copy of his process to Mr. Morse. The meantime he gave him instructions as to the manufacture of the camera, and in 1840 he sent him the original Morse daguerreotype camera, the first of its kind. Mr. Smillie pointed to a big square picture box flanked on either side by a camera, and a box of silver-plated copper plates, and the great buff

Comprehensive and Permanent Display at National Museum Shows Development of the Art—An Exhibit Worthy of the National Scope of the Institution—Chronologically Arranged, the Visitor Can Easily Follow Photography From Its Earliest Days—The Camera Obscura, Which Was First Used in 1802—The Most Valuable Photograph in the Whole Collection—The Invention of J. L. M. Daguerre—Dainty Portraits on Vitrified Enamel—A Section Devoted to Moving Pictures.



"LA HEINE," BY THE AMERICAN PHOTOGRAPHER, MOORE.

sticks used in imparting the wonderful polish to those old portraits of our grandfathers.

"Now here are the talbotype negatives," continued the custodian, strolling to another case. "These are so named from the inventor of the photographic negative, H. Fox Talbot, who in 1840 showed photographs printed from negatives. This was one of the most valuable inventions in photography, for while one beautiful picture could be made from a daguerreotype plate, any number could be produced from a negative.

"Mr. Talbot was a wealthy Englishman, who dabbled in photography as a scientific pastime, but his results in the early forties of the last century rival much of the work of today, as you can see by these photographs. The whole case is devoted to pictures reproduced from negatives made by Talbot, and nothing could be better than these fine prints of the interior and exterior of his beautiful English home, 'How did I get them?' I wrote to a friend in London, H. Snowden Ward, editor of the Photogram, telling him of my desire for some talbotypes for this collection. My letter was forwarded to the late Mr. Talbot's son, who sent these thirty-five representative examples of his father's work. Talbot was

the author of the first book illustrated by photographs. There it is, 'The Pencil of Nature,' dated 1844. They attempted some ambitious things in those old days. See, in this case is a forty-inch panoramic view of San Francisco harbor, taken in 1852, showing fourteen hundred sailing vessels standing idle and actually rotting, because the sailors had all deserted for the gold diggings. Look at this unique device, a stereoscopic daguerreotype case. It was presented by the patentee, who is nameless, to Prof. Joseph Henry, first secretary of the Smithsonian Institution, whose daughter gave it to us.

"Now here is a pretty exhibit. These dainty portraits are photographs on vitrified enamel. You see that when they are tinted they look very much like real miniatures. They would doubtless have become more popular had they been less expensive. You will recognize in this largest of medallions the monument to Daguerre which stands in the museum grounds. That monument is part of this photographic collection and was given by the National Photographic Association in 1890, when it held its sessions in London. Look at the magnificent copy of Sargent's portrait of St. Gaudens, and this wonderful study of the late H. P. Robinson, an Englishman who has been called the father of pictorial photography. Note the study of the two girls. Taken with a diffusion lens, you see no technical details. Observe the hair, how it is massed; you cannot separate it, as in ordinary photography. Mr. Robinson sold many of his prints for as high as \$200 each, and then he broke the negatives to give the purchasers exclusive pictures.

"The fine photographs occupying the next case were selected entirely by Alfred Stieglitz of New York, the man

about the country offering to make cheap glass portraits for 50 cents or \$1 each? This style was known as the ambrotype. Here it is beside its humble neighbor, the tintype. The inventor of the latter was an American, William Neff. He sent me for this exhibit 300 specimens of his process. Among them were the first, second, third and fourth originals showing the gradual improvement up to the best of this work done today.

"And now along the remaining sides of the gallery we have the specimens of modern photography, showing the great development made in the scientific and artistic sides of the work since the middle of the last century. Here are some specimens of high artistic quality. They were the work of a captain in the British army and were put on exhibition at the Cosmos Club, after which their maker presented them to the late G. Brown Goode, assistant secretary of the Smithsonian Institution.

"Here is another exhibit of the work of an Englishman. They are albumen silver prints from collodion wet plate negatives. The photographer gives every evidence of also being an artist. Here are some fine American compositions by Stein and McClelland. Look at the magnificent copy of Sargent's portrait of St. Gaudens, and this wonderful study of the late H. P. Robinson, an Englishman who has been called the father of pictorial photography. Note the study of the two girls. Taken with a diffusion lens, you see no technical details. Observe the hair, how it is massed; you cannot separate it, as in ordinary photography. Mr. Robinson sold many of his prints for as high as \$200 each, and then he broke the negatives to give the purchasers exclusive pictures.

"Look in that corner at the funny lit-

tle pinhole picture of a minute parasite magnified many degrees by the simple process of transmitted light, and see at this end the photograph on ivory for miniature painting as it was commonly done forty years ago.

"These next cases represent the different printing papers, and we have brought together in them the finest specimens obtainable. That head, done in the carbon process, looks like a Rembrandt. It is a direct photograph of a workman, by J. W. Swan, and stands for the highest attainment in artistic photography. There are some good examples by Feunoy. That platinum print of 'La Heine,' by Moore of Philadelphia, represents high artistic sense with fine technical knowledge of photography as well.

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FIRST PICTURE MADE WITH DIFFUSION FOCUS LENS, BY H. P. ROBINSON, "THE FATHER OF PICTORIAL PHOTOGRAPHY."

who can make a beautiful picture out of a seemingly impossible subject. Who but he would select a broken-down horse car and make of it a pleasing and artistic composition? Four of the prints here are his work. Here is one by Gertrude Kasebier and one by Francis Benjamin Johnson. This wonderful portrait is larger than life size, you see, and is not an enlargement, but direct print from the original negative. It is the largest photograph in the collection and is the work of W. S. Lively, president of the Southern School of Photography. I asked him for a specimen of his work and he sent me this framed 'Portrait of an Old

"This center case represents the Harris collection of portrait photography and it makes a very artistic showing. The professional portrait photographer has made great strides within the last twenty years. All nine of these are not portraits but real pictures.

"Now we come to the moving pictures and show the process and development of this popular phase of photography. There is the zoetrope, the first motion picture machine of which we have knowledge. It was the toy of our youth. Muybridge was probably the first man who made motion pictures to any considerable extent. There are a number of examples of his early work, and we have the whole series of the models of motion picture cameras and projectors invented by C. Francis Jenkins.

"The museum includes in its extensive photographic exhibit a splendid astronomical display. These large photographic prints mark the first great astronomical photograph taken by the Smithsonian eclipse expedition at Wadesboro, N. C. Note these very early and very interesting photographs of the moon by Rutherford, and the solar spectrum by the same scientist, both made in 1840.

"This wall case is filled with a splendid exhibit by the Harvard University astronomer, which is a very fine exhibit made by the Carnegie Institution of Washington, and shows some of the

work of its observatory at Mount Wilson, California. Look at these beautiful prints of spiral nebulae. These took from five to nine hours' exposure. Think of the delicacy of the apparatus which manipulates telescope and camera.

"Now in this case you see X-ray photographs of parts of the human body and one of a fish showing perfectly its minute bony system. This was the work of my chief assistant, Miss L. Bernice Gailher. Here are disease terms, mostly by Dr. Flexner of the Rockefeller Institute, and from the same source you see the photographs of live tissue of a chicken, which is continuing to live and grow on a silk screen after the chicken is dead.

"In this end case we have specimens of color photography representing the Lippman process, and Macdonough's and Joly's, the Wood's diffraction gratings process, as well as the autochrome process. We shall very soon have installed in this opposite case a stereomicrograph, in which there will be shown a great many lantern slides in all of the various color processes. It will run automatically and continuously, so that the visitor to the museum may see it in progress at any and all times.

"As to picture-making machines and their appliances, we have a representative exhibit, from the camera obscura, the first great optical device, to the latest automatic device on the latest camera. There is a machine which turns out 2,000 bromide prints and a case of shutters of every pattern. There is the huge lens which the celebrated photographer, Brady, used in making his series of civil war pictures. It is so large that people called it his 'big gun,' but it was necessary to secure the amount of light required for the rapid exposures he was compelled to make.

"We do not consider the exhibit anywhere near complete, as you see there are many blanks yet to be filled," concluded Mr. Smillie, who has been called the father of the history of photography.

## First Peace Society Organized in United States One Hundred Years Ago

TWO-THIRDS of the history of mankind has been the history of the great destroyer—war. A continuous line of poets from Homer to Tennyson has sung its glories. Music, painting, sculpture have each exerted their influence to cast a glamour around its bloody deeds. Volumes of Mars' scriptures have been taught against one volume of peace, and perhaps the press has never dealt in military allusions and illustrations more freely than at the present time.

Yet dreams of peace—and world peace, at that—have harbored in the thoughts of men. The present generation within the span of its life has seen these dreams become realities in the form of international congresses for the discussion of world peace and international courts of arbitration.

Despite the war raging in Europe, men and women are still holding to their visions and advocating the principles of peace with greater force than they have ever before summoned to the only action which can determine the policy of the future.

In view of the fact that the United States at the present time is the only first-class power not engaged in the slough of war, the national sense of indignation might be heightened were it more prevalent known that this country was the scene of the first rise of definite peace agencies. Peace societies, which now exist in every civilized country of the world, all had their inception in the work of a small band of fearless Americans who had faith enough to put their theories into circulation in their attempt to convert hopes into realities.

They are heroes of just one hundred years ago, when, in 1815, during the month of August, in New York city, the first peace society of the world was founded and known by the name of the "New York Peace Society." Without concert of mutual knowledge similar societies were organized in Ohio and Massachusetts before the close of the year, so that it may be said without exaggeration that 1815 was the year of the uprising of pacification.

Interest centers around the men who started these new and unpopular societies in the face of much ridicule and general indifference, for to them belongs the honor of having initiated the development of a phase of modern thought.

The "father of the peace movement" was David Low Dodge, a wealthy citizen of New York, who founded the first peace society of the world and who became its first president. He was the father of William E. Dodge, a noted American philanthropist and head of the national arbitration committee appointed in 1896, and was born at the time when the country was in the midst of the American revolution. His next door neighbor was Israel Putnam, the Connecticut hero, and through close association with the horrors of the war atmosphere he became alive to the full intensity and meaning of the term. Such expressions as "There is blood flowing somewhere today" and "Souls are passing into eternity at this moment" uttered by members of his family fastened themselves in his memory. When in later life he wrote invectives against the prac-

David Low Dodge, the "Father of the Peace Movement" in this country—Society Organized in New York City a Century Ago This Month, With Lodge the Founder and First President—First Ideas of the Society and Plans Outlined by the Members for the Prevention of War—How Movement Has Spread During One Hundred Years.

He knew whereof he spoke through bitter personal experience. From his boyhood days to 1815 David Dodge passed through years which held much fullness and activity for him. He founded a number of private schools in New York city, in which he taught, but shortly left this profession for business. His partnership with Nathaniel Newman first caused him to move to the metropolis and from this period of his life dates his activity as an advocate of peace.

In 1805 he wrote in his autobiography the following words, which indicate the trend of his thought: "I entered that children be given military toys nor be taken to military reviews, for nothing takes so strong hold upon the young and tender minds as martial music and the gaudy trappings of military service."

About this time he became interested in the subject of the anti-Christianism of war, which was receiving its first impulse then through the skilled essay of Dr. Noah Worcester, "The Solomon Review of War."

An early conflict took place in David Dodge's mind when he attempted to reconcile his newly gained abstract theories of opposition to war with his instinctive justification of the American revolution. But he persevered in his new convictions, and, as he states, "I conducted my interviews with my friends who had given a listening ear to the subject," with the result that in 1809 he united with twenty leading members of the new doctrines of peace and stoutly repudiated the maxims of war.

Early in 1812 the friends of peace in New York deliberated under his leadership on the expediency of founding a peace society to diffuse the new principles they had adopted. But at this juncture war was threatened against Great Britain, and it was judged unwise to form a society at the time.

Upon the restoration of peace between the United States and Great Britain, this same circle of men became active once again and had two or three meetings relative to the organization of a peace society.

One night in August, 1815, in the parlour of David Dodge's New York home, societies were organized in Ohio and Massachusetts before the close of the year, so that it may be said without exaggeration that 1815 was the year of the uprising of pacification.

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DAVID LOW DODGE, Father of the peace movement.

taken the place of the judicial committee of the American society has been co-existent with the American society, for an overseas meeting. The subject was taken up, and as a result in 1843 the great congress in Exeter Hall, London, was attended by 327 delegates, of whom thirty-seven were Americans.

The subsequent and more representative congresses at Brussels in 1844 and in Paris in 1845, at which Victor Hugo presided over a delegation of 2,000, are testimonials to the enthusiasm and growth of public opinion which had been aroused.

Congresses at nearly every world capital and metropolis followed, reaching their climax at the second Hague conference, at which practically all the nations were represented, when Andrew Carnegie, an advocate of world

peace, donated \$1,500,000 for a "temple of peace" for the court at The Hague. American contributions to the cause of international fraternity have been large, those of Mr. Carnegie being pre-eminent. Besides his donation to the building at The Hague, he has given \$5,000,000 as a pension fund for heroes of peace, whose heroism, long neglected

ed, he sees to be no less than the heroism of soldiers. In December, 1910, he set apart \$10,000,000 for the promotion of peace, and the Carnegie Endowment for International Peace, which has since that time been working for the cause of peace, has been established. More recently, in February, 1914, he established a church peace union for work among the soldiers' bodies, endowing it with \$2,000,000.

In the face of the war now raging among the world powers of Europe, Americans are holding to their vision of international peace. They are already at work preparing for reconstruction to be carried out along lines already advocated and are imploring that marking will learn a lesson from the present war and insist that it be the last.

The Woman's peace party of America, an indigenous organization like the first peace society, has been the direct outcome of the war in Europe. It was organized in New York city, the entrance of women in to the field. A great international peace congress is to be held in London, England, on October 11 and 12. This congress will take the place of the Vienna congress which was held in 1815, and which was the beginning of the war. The speakers who have been secured are Senator Henri La Fontaine of Belgium, one of the great peace makers of Europe, and Khan of Persia, the charge d'affaires of the Persian legation at Washington, and Theodore Roosevelt, president of the League to Enforce Peace.

The meeting will mark the latest effort of the American people to bring about the realization of world peace, which will be set on American soil.

## MANY VARIETIES OF TREES IN WASHINGTON.

THE intention of the government to create a national arboretum in the upper part of Rock Creek Park recalls the apparently little known fact that already the trees that grow in Washington constitute a vast arboretum, though the fact that the trees are so scattered detracts from the interest and value of the collection.

It has been said that the fact that the National Capital and one which distinguishes it above other cities is its wealth of foliage and multitude of tree forms. It is not only in the extent of its urban woodland that Washington stands first among cities, but also in the number of varieties of trees. The plant world is so close called by those persons who have an eye and fancy for tree life a great arboretum. Northern and southern, eastern and western, lowland, highland, marsh and mountain forms of trees grow in the streets, parks and gardens.

It is no doubt true that the part of the city where the greatest number of trees are to be seen is Rock Creek Park, which surrounds the buildings of the Department of Agriculture. The arboretum here is the most beautiful tree forms may be seen in either the National Botanic Garden, which is to be on the site of the old grounds of the Department of Agriculture. There was an effort, and rather a successful effort, to gather the grounds of the Department of Agriculture would be like reproducing a page from the encyclopedia on trees. In the group of the Department of Agriculture would be like reproducing a page from the encyclopedia on trees. In the group of the Department of Agriculture would be like reproducing a page from the encyclopedia on trees. In the group of the Department of Agriculture would be like reproducing a page from the encyclopedia on trees.

near very much as stunted and deformed trees might look. Between the main entrance to the grounds and the executive offices grow cedars of Lebanon, sassafras, dogwoods, black haws, sweet gum and blue gum, hawthorn, horse chestnut and many others of the southern family. One may look at white and paper mulberry trees, great laurel, Japan lemon, Norway spruce, and silver maple, Siberian pine trees, princess trees of the figwort family from China and Japan, and in the Capitol grounds will be found silver bell trees of the storax family.

In the Botanic Garden the memorial trees are well known to the public, but there are many tree forms which are interesting outside of these. The cypress which was planted by Edward Forster, the actor, a Japanese cypress planted by Mrs. Jefferson Davis while her husband was Secretary of War, an acacia planted by Albert Pike, a Lebanon cedar, and a mossy over-cup oak planted by Mrs. Jefferson Davis while her husband was Secretary of War, an acacia planted by Albert Pike, a Lebanon cedar, and a mossy over-cup oak planted by Mrs. Jefferson Davis while her husband was Secretary of War.

There is also a grove of maples, including the field maple of England, the dwarf maple and that maple of the crimson leaf from Japan. There is also a grove of sweet-smelling lindens, some of them European, with small rough leaves, and some of the American kind with large smooth and shining leaves. The palmetto, both the "saw" and "cabbage" kind, are also in the grounds of Washington to cheer those of its citizens and visitors who come from the coast of South Carolina in the memory of the southern family. One is glad to see the eucalyptus, redwood, silver fir and wild pepper. There are also many other trees in the grounds of Washington, and in the Capitol grounds will be found silver bell trees of the storax family.

Among the flowering shrubs and plants which greet a man as he strolls through the public grounds in Washington are crepe myrtle, lantana, cactus, primrose, oleander, Spanish bayonet, agave, silver cholla and many other plants which bloom in the open public or private grounds.